

SINGLE CRYSTAL Ni HEAT RESISTANT ALLOY AND TURBINE BRADE

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Abstract of JP2001294959

PROBLEM TO BE SOLVED: To provide a single crystal heat resistant Ni alloy excellent in castability and also excellent in a high temperature strength, and to provide a turbine blade made of the same.
SOLUTION: This alloy has a composition containing, by weight, 7.5 to 10% Cr, 4.5 to 6% Co, 0.5 to 3% Mo, 7 to 9% W, 4.5 to 6.5% Al and 5.5 to 7.0% Ta, and further containing either or both of 0.005 to 0.07% C and 0.001 to 0.006% B. If required, the alloy contains one or more kinds of metals selected from 0.01 to 0.2% Hf, 0.01 to 2% Re, 0.01 to 0.03% Pt, 1 to 100 ppm Ca, 1 to 100 ppm Mg and 0.5 to 2% Ti as well.

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